

REMARKS

The present amendment is submitted in response to the Office Action mailed July 25, 2007. Claims 1-5 are currently pending in the application. Claims 1 has been amended. No new matter or issues are believed to be introduced by this amendment. In view of the amendments above and the remarks to follow, reconsideration and allowance of this application are respectfully requested.

Claim Objections

In the Office Action, Claim 1 was objected to because claim 1 includes reference characters which are not enclosed within parentheses and making reference to Fig. 1. Claim 1 has been amended in a manner which is believed to overcome the rejection. Reconsideration and withdrawal of the rejection are therefore respectfully requested.

35 U.S.C. §102(b)

Claims 1, 3, 4 and 5 were rejected under 35 U.S.C. §102(b) as being anticipated by EP 1172811 A2 – Kojima hereinafter.

With regard to Claim 1, in making the rejection, the Examiner alleges that Kojima teaches the elements of the dual-stack optical data storage medium of the invention. With particular reference to the characterizing step, the Examiner alleges that Kojima teaches the characterizing step of – *the spacer layer has a thickness selected from the range 20-30 .mu.m, the thickness d_{TS0} in dependence on the refractive index n_{TS0} and the thickness d_{TS1} in dependence on the refractive index n_{TS0}.*

In support of the Examiner's position, the Examiner directs the Applicants attention to paragraph 75 of Kojima. However, for the reasons discussed below the Applicants respectfully disagree and traverse the rejection.

Paragraph 75 of Kojima recites –

[0075] The intermediate layer 15 is formed for the purpose of distinguishing the focus position of the first recording from 18 from that of the second recording layer 27. In the intermediate layer 15, grooves for tracking control may be formed. The intermediate layer 15 can be made of light-curable resin or slow-acting resin. A material for the intermediate layer 15 preferably has a small light absorptivity at a wavelength lambda of the laser beam 35. The thickness of the intermediate layer 15 is a depth of focus DELTA Z or more determined by a numerical aperture NA of an objective lens condensing the laser beam 35 and the wavelength lambda (nm) thereof. In the case where the intensity of a condensing point is 80% of that in the absence of aberration, the depth of focus DELTA Z can be approximated by an equation $\text{DELTA Z} = \lambda / (2 \cdot \text{NA}^2)$. Thus, when $\lambda = 400 \text{ nm}$ and $\text{NA} = 0.6$, $\text{DELTA Z} = 0.556 \mu\text{m}$. In this case, a range within $\pm 0.6 \mu\text{m}$ falls in the depth of focus, so that the thickness of the intermediate layer 15 should be 1 μm or more. On the other hand, it is preferable that the thickness of the intermediate layer 15 is prescribed to be 50 μm or less so that the laser beam 35 can be condensed into both the first recording layer 18 and the second recording layer 27. [Emphasis Added]

Independent claim 1 recites that the spacer layer has a thickness in dependence on the refractive index. In contrast, Kojima clearly teaches at par. 75 that the thickness of the intermediate (spacer) layer 15 is determined, not in dependence on the refractive index, but instead in dependence on a numerical aperture NA of the objective lens.

Moreover, Kojima does not teach or disclose a spacer layer (i.e., intermediate layer 15 of Kojima) having a range of *20-30 μm* , as recited in claim 1. Instead, Kojima teaches at par. 75 that the thickness of the intermediate layer 15 should be 1 μm or more and preferably 50 μm or less. As clearly recited in the specification, only by bounding the

spacer layer to the precise range of 20-30 *μm* can a reliable readout of both the first and the second information layers L0 and L1 be achieved. By teaching that the thickness of the intermediate layer can be unbounded on either the upper or lower end and can be as much as 50 *μm*, Kojima in essence, teaches away from the present invention.

Since each and every element must be present in a single reference in order to anticipate a claim, and as discussed above, Kojima fails to teach or suggest *the spacer layer has a thickness selected from the range 20-30 .mu.m, the thickness d_{TS0} in dependence on the refractive index n_{TS0} and the thickness d_{TS1} in dependence on the refractive index n_{TS0}*, the rejection of Claims 1, 3, 4 and 5 under 35 U.S.C. §102 (b) over Kojima must be reconsidered and withdrawn.

Since Claims 3, 4 and 5 depend from Claim 1, they contain all of the limitations, attributes and features of Claim 1 and for the reasons discussed above it is respectfully requested that the rejection of Claims 2-3 under 35 U.S.C. §102(b) under Wagner be reconsidered and withdrawn.

In view of the foregoing, it is respectfully requested Claims 1, 3, 4 and 5 are in condition for allowance and the same is respectfully requested.

35 U.S.C. §103(a)

In the Office Action, Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over Kojima as applied to claim 1 above, and further in view of U.S. Patent Application 2001/0030932 – Spruit – and U.S. Patent Application 2001/0053122 – Yukomoto et al.

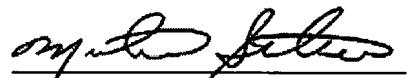
Claim 2 depends from Claim 1 and therefore includes the limitations of Claim 1, as amended. Accordingly, for the same reasons given above for Claim 1, Claim 2 is believed to contain patentable subject matter. Accordingly, withdrawal of the rejections with respect to Claim 2 is respectfully requested.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-5 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Mike Belk, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-945-6000.

Respectfully submitted,



Michael A. Scaturro
Reg. No. 51,356
Attorney for Applicant

Mailing Address:
Intellectual Property Counsel
Philips Electronics North America Corp.
P.O. Box 3001
345 Scarborough Road
Briarcliff Manor, New York 10510-8001